EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Chin (Jimmy) Kim on 8/3/2010.

The application has been amended as follows:

In the claims:

Claims 1, 3, 4, 7-11 have been replaced by the following:

Claim 1. A method for reducing signaling load in a communication network having a plurality of switches, the method comprising:

receiving a notification of a link failure at a first switch and a second switch adjacent to a link associated with the link failure;

identifying a first plurality of circuits in a first direction affected by the link failure by the first switch and identifying a second plurality of circuits in a second direction affected by the link failure by the second switch, wherein each circuit of the first plurality of circuits and the second plurality of circuits comprises a path of a plurality of links;

grouping affected circuits in accordance with a first plurality of end-switches to which a first plurality of signaling messages have to be sent by the first switch and a second plurality of end-switches to which a second plurality of signaling messages have to be sent by the second switch;

bundling the first plurality of signaling messages for each of the first plurality of end-switches in accordance with the affected circuits that are grouped by the first switch and the

second plurality of signaling messages for each of the second plurality of end-switches in accordance with the affected circuits that are grouped by the second switch; and

forwarding a respective bundle of signaling messages of the first plurality of signaling messages to one of the first plurality of end-switches by the first switch in the first direction away from the link failure and forwarding a respective bundle of signaling messages of the second plurality of signaling messages to one of the second plurality of end-switches by the second switch in the second direction away from the link failure, wherein the affected circuits that are grouped are added to a "to-be-restored" list sorted by a class of services of all circuits by an end switch of the first plurality of end-switches or the second plurality of end-switches.

Claim 3. The method of claim 1, wherein the forwarding forwards the respective bundle of signaling messages of the first plurality of signaling messages or the respective bundle of signaling messages of the second plurality of signaling messages in a signaling packet.

Claim 4. The method of claim 1, wherein the forwarding forwards the respective bundle of signaling messages of the first plurality of signaling messages or the respective bundle of signaling messages of the second plurality of signaling messages for circuits with a common end switch.

Claim 7. The method of claim 4, wherein the forwarding forwards the respective bundle of signaling messages of the first plurality of signaling messages or the respective bundle of signaling messages of the second plurality of signaling messages for circuits with the common end switch along a common path.

Claim 8. A system for reducing signaling load in a communication network having a plurality of switches, the apparatus comprising:

a first switch comprising a first controller adjacent to a link associated with a link failure for receiving a notification of the link failure, and for identifying a first plurality of circuits in a first direction affected by the link failure, wherein each circuit of the first plurality of circuits

comprises a path of a plurality of links, and for grouping affected circuits in accordance with a first plurality of end-switches to which a first plurality of signaling messages have to be sent, for bundling the first plurality of signaling messages for each of the first plurality of end-switches in accordance with the affected circuits that are grouped and forwarding a respective bundle of signaling messages of the first plurality of signaling messages that are bundled to one of the first plurality of end-switches by the first switch in the first direction away from the link failure; and a second switch comprising a second controller adjacent to the link associated with the link failure for receiving a notification of the link failure, and for identifying a second plurality of circuits in a second direction affected by the link failure, wherein each circuit of the second plurality of circuits comprises a path of a plurality of links, and for grouping affected circuits in accordance with a second plurality of end-switches to which a second plurality of signaling messages have to be sent, for bundling the second plurality of signaling messages for each of the second plurality of end-switches in accordance with the affected circuits that are grouped and forwarding a respective bundle of signaling messages of the second plurality of signaling messages that are bundled to one of the second plurality of end-switches by the second switch in the second direction away from the link failure, wherein the affected circuits that are grouped are added to a "to-be-restored" list sorted by a class of services of all circuits by an end switch of the first plurality of end-switches or the second plurality of end-switches.

Claim 9. The system of claim 8, wherein the first controller forwards the respective bundle of signaling messages of the first plurality of signaling messages to one of the first plurality of end-switches and the second controller forwards the respective bundle of signaling messages of the second plurality of signaling messages to one of the second plurality of end-switches.

Claim 10. The system of claim 9, wherein the respective bundle of signaling messages of the first plurality of signaling messages or the respective bundle of signaling

messages of the second plurality of signaling messages is forwarded for circuits with a common end switch.

Claim 11. A non-transitory computer-readable medium having stored thereon a plurality of instructions, the plurality of instructions including instructions which, when executed by a processor, cause the processor to perform a method comprising of:

receiving a notification of a link failure at a first switch and a second switch adjacent to a link associated with the link failure;

identifying a first plurality of circuits in a first direction affected by the link failure by the first switch and identifying a second plurality of circuits in a second direction affected by the link failure by the second switch, wherein each circuit of the first plurality of circuits and the second plurality of circuits comprises a path of a plurality of links;

grouping affected circuits in accordance with a first plurality of end-switches to which a first plurality of signaling messages have to be sent by the first switch and a second plurality of end-switches to which a second plurality of signaling messages have to be sent by the second switch;

bundling the first plurality of signaling messages for each of the first plurality of end-switches in accordance with the affected circuits that are grouped by the first switch and the second plurality of signaling messages for each of the second plurality of end-switches in accordance with the affected circuits that are grouped by the second switch; and

forwarding a respective bundle of signaling messages of the first plurality of signaling messages to one of the first plurality of end-switches by the first switch in the first direction away from the link failure and forwarding a respective bundle of signaling messages of the second plurality of signaling messages to one of the second plurality of end-switches by the second switch in the second direction away from the link failure, wherein the affected circuits that are grouped are added to a "to-be-restored" list sorted by a class of services of all circuits by an end switch of the first plurality of end-switches or the second plurality of end-switches.

2. The following is an examiner's statement of reasons for allowance:

Claims 1, 3-5, 7-11 are allowed. The prior art alone or in combination fail to teach or make obvious on the following when considered in combination with other limitations in the claim:

In claims 1, 8, and 11: forwarding a respective bundle of signaling messages of the first plurality of signaling messages to one of the first plurality of end-switches by the first switch in the first direction away from the link failure and forwarding a respective bundle of signaling messages of the second plurality of signaling messages to one of the second plurality of end-switches by the second switch in the second direction away from the link failure, wherein the affected circuits that are grouped are added to a "to-be-restored" list sorted by a class of services of all circuits by an end switch of the first plurality of end-switches or the second plurality of end-switches.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NITTAYA JUNTIMA whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 9:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nittaya Juntima/
Primary Examiner, Art Unit 2462
8/3/2010